

REMARKS

The Office Action mailed March 4, 2005 has been carefully considered.

Reconsideration in view of the following remarks is respectfully requested.

Claim 19 has been amended to further particularly point out and distinctly claim subject matter regarded as the invention as suggested by the Examiner. No new matter had been added.

Rejection under 35 USC §112

Claim 26 stands rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claims the subject matter which applicant regards as the invention. This rejection is traversed.

Specifically, the Office Action states that “claim 19 still refers to both a ‘recording layer’ (lines 1-2) and a ‘garnet ferrite recording layer’ (line 3).” Claim 19 has been amended to change “garnet ferrite recording layer” to “garnet ferrite layer”.

With this amendment it is respectfully submitted that the claims satisfy the statutory requirements. Accordingly, it is respectfully requested that this rejection be withdrawn.

Rejection under 35 USC §102(b) – claims 19-24 and 27-30

Claims 19-24 and 27-30 stand rejected under 35 USC §102(b) as being allegedly anticipated by Machida (US 4,883,710). Claim 19 is an independent claim. This rejection is respectfully traversed.

A claim must be anticipated for a proper rejection under §102(a), (b), and (e). This requirement is satisfied “only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference”; see MPEP §2131 and *Verdegaal Bros. V. Union Oil*, 814 F.2d 628, 2 USPQ2d 1051 (Fed. Cir. 1984). A rejection under §102(b) may be overcome by showing that the claims are patentably distinguishable from the prior art; see MPEP §706.02(b).

The Office Action states:

“*process* limitations in a *product* claim are not germane to the determination of patentability of the product unless it can be shown that the processing steps result in an unobvious difference in the structure of the resulting product. While the Examiner acknowledges applicants’ position that the specific process utilized in the prior art and in the claimed invention appear to be different, applicants have provided no *evidence* of any unobvious difference in the resulting product. “

As stated by the Examiner, the process utilized in the prior art and in the claimed invention are different. Specifically, Claim 19 provides that the heat treatment is performed *after* the formation of an underlayer and a garnet ferrite layer. The effects of the formation after the formation of an underlayer and a garnet ferrite layer imparts a distinctive structural characteristic to the final product of the claimed invention as further

explained below. Thus, the structure of the claimed invention is different since the final product can only be defined by the process utilized in the claimed invention and not in the prior art reference.

This structural difference is evidenced by Figures 1 -3 illustrated in "Magneto-optical properties of a sputtered Bi-substituted Dy iron garnet-ferrite/spinel-ferrite bilayer", 193 (1999), pgs. 143-147, a copy of which is attached. Figure 1(a) illustrates an X-ray diffraction pattern obtained after one-hour of heat treatment *after* the formation of a single garnet ferrite layer. Fig. 1(b) shows an X ray diffraction pattern obtained after 5 minutes of heat treatment *after* the formation of a single garnet ferrite layer. Thus, the figures show that if no underlayer is used, one hour of heat treatment can cause crystallization of the garnet ferrite layer, but 5 minutes of heat treatment cannot cause crystallization.

Figure 3 illustrates an X-ray diffraction pattern of a layered structure of a garnet ferrite layer and a spinel ferrite underlayer after 5 minutes of heat treatment and figure 2 illustrates a Faraday rotation of a layered structure of a garnet ferrite layer and a spinel ferrite underlayer after 5 minutes of heat treatment. Thus, if an underlayer for a garnet ferrite layer is used to form a layered structure, even only 5 minutes of heat treatment of the layered structure can cause crystallization of the garnet ferrite layer, providing good optical-magnet properties.

Thus, the claimed invention is structurally different in that it can very rapidly form a layered structure of a garnet ferrite layer and an underlayer, and thereby shorten production time of a magneto-optical recording medium.

Furthermore, as Applicant had previously stated, Machida describes setting each of the temperatures of substrates when forming first and second magnetic layers thereon, namely between 400-600°C. (Col. 16, lines 3-17). In general, the higher a substrate temperature, the slower the formation of a recording layer on the substrate. On the other hand, the temperature of the substrate disclosed in the article is much lower, namely at 150° C. Thus, the formation of the first and second magnetic layers of Machida requires much more time due to the high temperature of the substrate.

By the heat treatment after the formation of the underlayer and the garnet ferrite (recording) layer, the present invention provides remarkable effects of providing magneto-optical recording abilities to the garnet ferrite (recording) layer 3a only on the underlayer 2 while making the garnet ferrite layer 3b which is not formed on the underlayer 2 non-magnetic as shown in FIG. 18A and FIG. 18B.

Thus, since each and every element as set forth in the claim is not found in Machida and the process results in a structurally different product, it can not be said to anticipate the claimed invention. Accordingly, it is respectfully requested that this rejection be withdrawn.

Rejection under 35 USC §103(a) – claims 25 and 26

Claims 25 and 26 stand rejected under 35 USC §103(a) as being allegedly unpatentable over Machida (US 4,883,710) in view of Licht (US 5,146,361). This rejection is respectfully traversed. Claims 25 and 26 depend upon Claim 19 and the argument set forth above is equally applicable here. The base claims being allowable, the dependent claims must also be allowable. Accordingly, it is respectfully requested that this rejection be withdrawn.

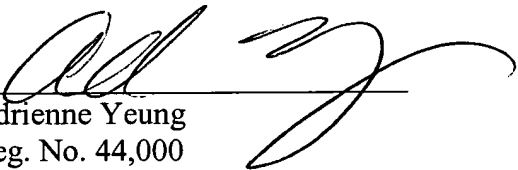
Conclusion

For all of the above reasons, applicants submit that the amended claims are now in proper form, and that the amended claims all define patentable subject matter over the prior art. Therefore, Applicants submit that this application is now in condition for allowance.

Request for allowance

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited. If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Respectfully submitted,
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